APRIL/MAY2025

FCA41/FCS41/CCA41/CCS41 — RELATIONAL DATABASE MANAGEMENT SYSTEMS

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Define database system.
2. What is attribute?
3. Tell about relational algebra.
4. Define view.
5. What is called functional dependency?
6. State Boyce Codd normal form.
7. Abbreviate RAID.
8. What do you mean by data dictionary?
9. Define lock.
10. Why is concurrency control needed?

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Give an account on database administrator.

Or

(b) Draw the E-R diagram for company database.

12. (a) Brief note on tuple relational calculus.

Or

(b) List and explain aggregate function.

13. (a) Determine decomposition is lossless or lossy.

Or

(b) State and Explain second normal form.

14. (a) Discuss about optical disk in detail.

Or

(b) Differentiate fixed length record and variable length record.

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15. (a) What is a transaction? Discuss the different types of transaction failures that may occur in database.

Or

(b) Describe the desired properties of ACID.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Expound database Architecture.

17. Describe in detail about Set operations.

18. Explain Boyce Codd Normal form.

19. Summarize Sequential file organization.

20. Discuss about the deadlock handling mechanism.

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